

Stoke and Staffordshire LEP

Low Carbon Environmental Goods and Services Market Snapshot

Midlands Energy Hub
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Disclaimer

kMatrix

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Midlands Energy Hub

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Project Overview

The Low Carbon and Environmental Goods and Services sector study was commissioned by Nottingham City Council on behalf of the Midlands Energy Hub, sponsored by the Department of Business, Energy and Industrial Strategy (BEIS), and its stakeholders across the Midlands including the Local Enterprise Partnerships (LEPs) and Local Authorities.

The study was commissioned in November 2020 and awarded to kMatrix Data Services Ltd and Sustainability West Midlands, with the aim of understanding the current state of the sector, where support is needed to help grow the sector across the Midlands from a Local Authority level to a regional level and the role the sector can play to drive a low-carbon recovery from Covid-19.

The UK has a clear commitment to clean growth, where the economy continues to grow while reducing greenhouse gas emissions. The commitments are set out in the Industrial Strategy and the Clean Growth Strategy. The UK has a strong record of clean growth, cutting carbon emissions by 42% between 1990 and 2015, while experiencing a 67% increase in GDP during the same period, in contrast to the G7 emissions reduction of 3% and GDP increase of 61%¹. This has been achieved through a variety of strategies including improved energy efficiency, increased recycling of waste products and improved automobile engine technology, with the largest contribution in reduction of emissions from the decarbonisation of power. The UK now has the largest installed offshore wind capacity in the world².

Although the UK is arguably a world leader in clean growth, there is an ongoing need for further development across multiple sectors to deliver on the low carbon economy commitments both local and central government are pursuing. LEPs in the Midlands are fully cognizant of the need to support and further develop the green economy, as set out in their Energy Strategies and Local Industrial Strategies.

The study is grounded in evidenced data provided by the kMatrix big data analytical tool, which has been used to inform the nature of the sector across the Midlands region, in a number of sub-sectors. The data has been used alongside desk research, documentation review, stakeholder engagement and collaboration with partners and the awarding authority to produce a series of reports constituting an evidence base of both quantitative and qualitative evidence. This evidence not only informs policy recommendations as an integral part of the study, but also acts as a baseline from which progress can be measured post Covid-19 and into the future.

The study involved the production of a quantitative evidence base led by kMatrix and a qualitative evidence-base led by Sustainability West Midlands with findings from each workstream enriching the evidence of the other. By full collaboration between partners, the project steering group and stakeholders, the evidence base produced by the project delivers a comprehensive overview of the LCEGS market, with detailed information at the LEP and Local Authority levels. The wider relevance to the green recovery and national commitment to net zero by 2050 have been considered throughout the work and are integral to the policy recommendations and growth forecasts made during the study.

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf

² <https://gwec.net/global-figures/global-offshore/>

Local Authorities within the Stoke and Staffordshire LEP

This report includes local authority-level data, to allow deep disaggregation within the LEP area. For clarity of data visualization, the names of many local authorities have been shortened. The formal names and shortened labels of the local authorities within the Stoke and Staffordshire LEP are listed below:

Formal name	Shortened label
Staffordshire Moorlands DC	Staffordshire Moorlands
Stoke-on-Trent City C	Stoke-on-Trent
Stafford BC	Stafford
South Staffordshire C	South Staffordshire
Cannock Chase DC	Cannock Chase
Newcastle-under-Lyme DC	Newcastle-under-Lyme
East Staffordshire BC	East Staffordshire
Lichfield DC	Lichfield
Tamworth BC	Tamworth

Executive Summary

Stoke and Staffordshire LEP's Low Carbon and Environmental Goods and Services (LCEGS) sector was worth £2.7bn to the Stoke and Staffordshire LEP's economy in 2019/20, as indicated by the value of sales in the sector. These sales were generated by over 900 businesses that employed over 18,500 people in the sector in 2019/20.

Sales and growth

The Low Carbon and Environmental Goods and Services sector in the Stoke and Staffordshire LEP grew year on year since 2017/18. In 2017/18 total sales in the sector were worth £2.4bn have now reached £2.7bn in 2019/20.

The sector in the Stoke and Staffordshire LEP grew by 5.9% during the financial year 2017/18 to 2018/19 and 6.6% during 2018/19 to 2019/20. This rate of growth is stronger than the MEH average (5.2% and 5.0% respectively), but slower than the UK average for the same period (10.0% and 8.1% respectively), however, the fast rate of growth in London raises the UK average.

Employment

Employment in Stoke and Staffordshire LEP's Low Carbon and Environmental Goods and Services sector in 2019/20 was 18,740, up from 17,460 in 2017/18. Annual growth rate in employment was 2.4% between 2017/18 and 2018/19 and 4.8% between 2018/19 and 2019/20. This rate of growth is slower than both the MEH average (5.7% and 5.0% respectively) and the UK average for the same period (9.4% and 7.3% respectively) however, the fast rate of growth in London raises the UK average.

Companies

The number of companies in Stoke and Staffordshire LEP's Low Carbon and Environmental Goods and Services sector in 2019/20 was 932, up from 822 in 2017/18. Annual growth rate in the number of companies was 5.2% between 2017/18 and 2018/19 and 7.8% between 2018/19 and 2019/20. This rate of growth is stronger than the MEH average (3.6% and 5.0% respectively), but slower than the UK average for the same period (9.3% and 10.3% respectively) however, the fast rate of growth in London raises the UK average.

Stoke and Staffordshire LEP's sub-sectors

In 2019/20 Stoke and Staffordshire LEP's Low Carbon and Environmental Goods and Services sector was made up by the following proportions: Renewable Energy 40%, Low Carbon 38% and Environmental 22%.

Stoke and Staffordshire LEP's sub-sector strengths

The four largest sub-sectors in the Low Carbon and Environmental Goods and Services sector by sales account for 57% of the Stoke and Staffordshire LEP's total sales and are made up of:

- Wind (£441m) – this includes control systems development and manufacture, drive train development, manufacture and systems integration, consulting houses and companies providing power firming systems and services, maintenance services and grid integration services
- Building Technologies (£417m) - this includes head office functions, building systems design and consultancy and building systems providers and installers
- Alternative Fuels (£381m) – this includes R&D functions, alternative fuel providers, designers and consultancy, process implementation, sales and accounting and application development specialists

- Photovoltaic (£284m) - this includes head office functions, systems developers, providers and installers

The next seven largest sub-sectors by sales account for a further 39% of Stoke and Staffordshire LEP's total sales and are made up of:

- Water & Waste Water Treatment (£203m) - development and implementation by utilities along with supply, consultancy and implementation by independent consulting engineers
- Biomass (£199m) - this includes systems development, supply, implementation and R&D
- Waste Management (£177m) - this includes process development and new process implementation and consulting, public and private operations management and supply and installation of operational equipment
- Alternative Fuel Vehicle (£149m) - include selling agencies, alternative fuel development companies and consulting and applications development for vehicle conversion specialists
- Recovery and Recycling (£147m) – this includes waste collection, glass stock processing and paper feedstock processing
- Geothermal (£119m) - this includes branch office functions, design, international consultancy, lateral geothermal systems providers and installers at the domestic and small commercial level and vertical control systems developers and suppliers
- Energy Management (£55m) – this includes registered gas engineers, measurement and control systems and fitting and maintenance

Sub-sector growth

Stoke and Staffordshire LEP's four largest sub-sectors by sales have all enjoyed high levels of growth in sales, number of employees and number of companies between 2017/18 and 2019/20:

- Wind – sales have grown from £391m to £441m (12.6%), number of employees by 7.2% and number of companies by 13.8%
- Building Technologies – sales have grown from £370m to £417m (12.9%), number of employees by 7.4% and number of companies by 13.4%
- Alternative Fuels – sales have grown from £336m to £381m (13.3% increase), number of employees by 7.8% and number of companies by 14.3%
- Photovoltaic – sales have grown from £252m to £284m (12.5% increase), number of employees by 7.0% and number of companies by 12.5%

Sub-sectors which saw stronger growth than the UK average between 2017/18 and 2019/20 include:

- Marine Pollution Control with 16.7% (MEH 11.4%, UK 12.7%)
- Environmental Monitoring with 14.3% (MEH 11.3%, UK 12.2%)
- Air Pollution with 13.3% (MEH 11.4%, UK 5.8%)
- Renewable Energy General Consultancy with 13.3% (MEH 11.3%, UK 10.8%)
- Water and Waste Water Treatment with 13.2% (MEH 11.3%, UK 12.7%)
- Contaminated Land Reclamation and Remediation with 12.9% (MEH 11.4%, UK 1.0%)
- Energy Management with 12.8% (MEH 11.4%, UK 5.7%)
- Alternative Fuel Vehicle with 12.8% (MEH 11.4%, UK 5.7%)
- Hydro with 11.7% (MEH 11.0%, UK 1.8%)

Investment in R&D

Investment in R&D within Stoke and Staffordshire LEP grew in all three categories of investment between 2017/18 and 2019/20:

- Private Equity Investment in R&D grew 6.9 from £121m in 2017/18 to £128m in 2019/20
- Venture capital Investment in R&D grew 10.7% from £241m in 2017/18 to £267m in 2019/20
- Other Investment in R&D grew 6.3% from £380m in 2017/18 to £404m in 2019/20

Scalability of sub-sectors

Scalability of the sub-sectors within the Stoke and Staffordshire LEP is variable and when combined with GVA, strengths include:

- Water and Waste Water Treatment with good GVA and high Scalability (stronger position than the MEH average)
- Building Technologies with high GVA and high Scalability (stronger position than the MEH average)
- Photovoltaic with high GVA and high Scalability (stronger position than the MEH average)
- Geothermal with good GVA and good Scalability (stronger position than the MEH average)
- Alternative Fuel Vehicle with good GVA and good Scalability (stronger position than the MEH average)
- Waste Management with good GVA and good Scalability (stronger position than the MEH average)
- Recovery and Recycling with reasonable GVA and good Scalability (stronger position than the MEH average)

Stoke and Staffordshire LEP's Exports

The value of exports in Stoke and Staffordshire LEP's Low Carbon and Environmental Goods and Services sector in 2019/20 was £287m, an increase from £250m in 2017/18. This accounted for 9% of the MEH's LCEGS exports in 2019/20 and is in line with Stoke and Staffordshire LEP's 9% share of the overall MEH LCEGS market.

Stoke and Staffordshire LEP's LCEGS exports grew by 5.8% and 8.7% over the last three years which compared with MEH growth of 4.5% and 6.2% and UK growth of approximately 8.7% and 9.5% respectively.

Stoke and Staffordshire LEP's top Export sub-sectors which saw large export market and strong growth include:

- Wind - £47m
- Building Technologies - £45m
- Alternative Fuels - £43m
- Biomass - £21m
- Geothermal - £13m